

# MANUFACTURE OF GAS DETECTION ELEMENT

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**Classification:**

- **international:** **G01N27/12; G01N27/16; G01N27/12; G01N27/14;** (IPC1-7): G01N27/16

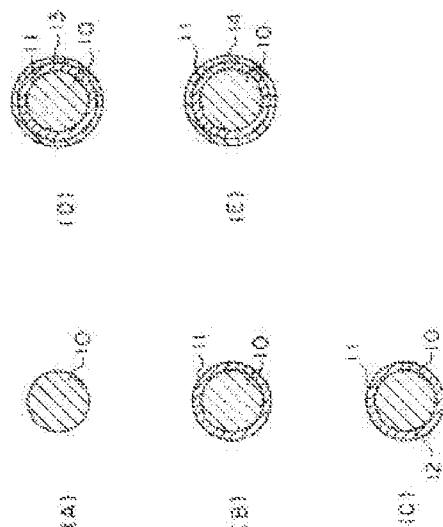
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## Abstract of JP 57084342 (A)

**PURPOSE:**To improve the response characteristics while enhancing the mechanical strength of elements by providing a catalyst activating layer on the surface of a coated layer containing a specified metal which attached to and formed on a matrix has been alloyed by heating. **CONSTITUTION:**A coated layer 11 containing at least one kind of metal selected from among Ag, Au, Cu, Ni, In and the like is attached to and formed on a matrix 10 made of Pt or Pt alloy having a high heat resistance temperature coefficient with a diameter ranging from about 5-50μm. The thickness of the coated layer 11 ranges from 0.5-10μm. Then, it is heated for a specified time at about 800-1,000 deg.C to be alloyed at least near the boundary 12 between the coated layer 11 and the matrix 10, and heated gradually in an atmosphere containing oxygen 30-40% to an oxide layer 13 on the outer surface of the coated layer 11. Subsequently, a gas mixture comprising H<sub>2</sub>, H<sub>2</sub>O, HCl and a trace of H<sub>2</sub>S is brought into a reductive reaction with the oxide layer 13 to form a catalyst activating layer 14.



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